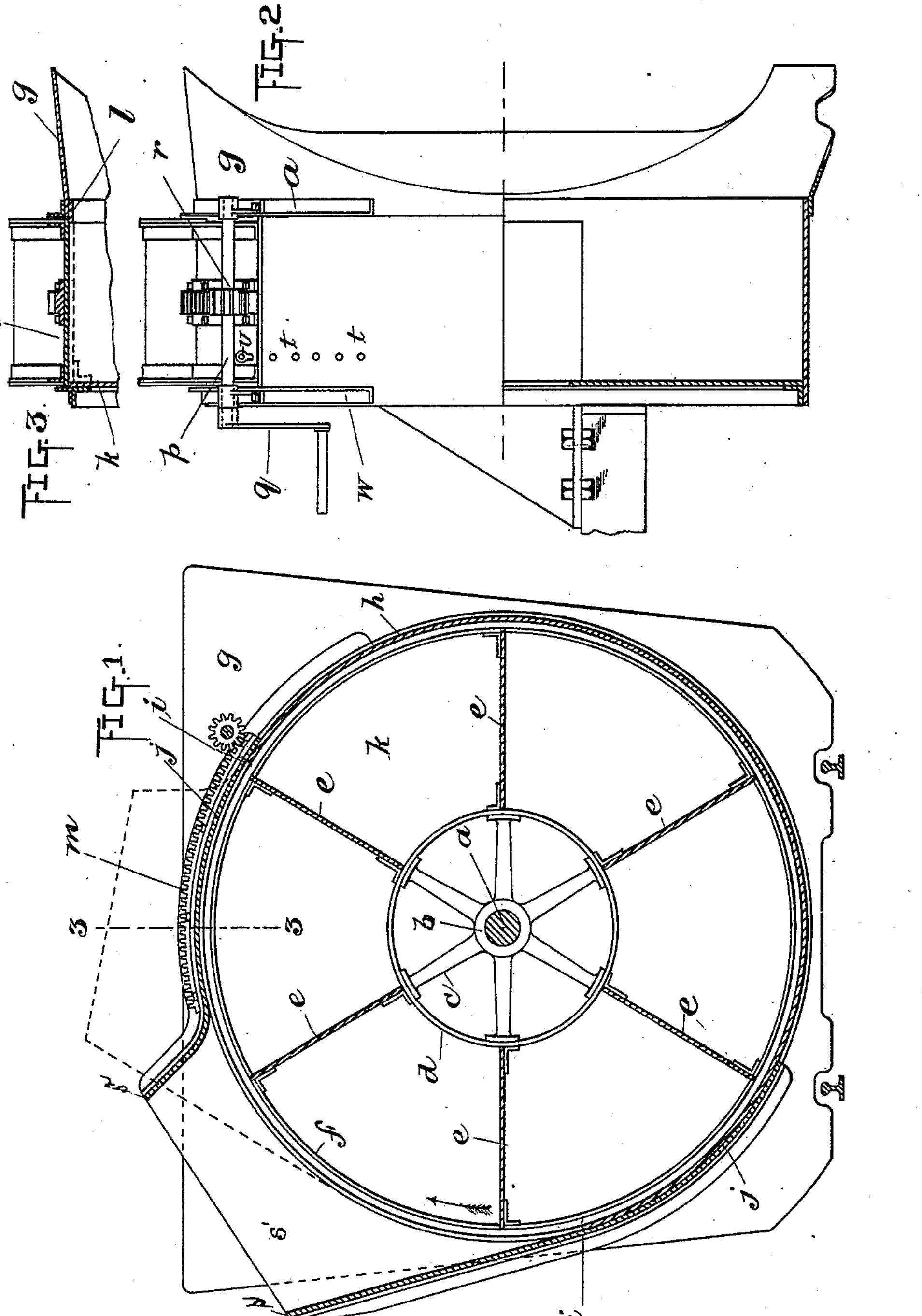
(No Model.)

T. SCHEFFLER.

SNOW PLOW.

No. 421,768. Patented Feb. 18, 1890.



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UNITED STATES PATENT OFFICE.

THEODORE SCHEFFLER, OF PATERSON, NEW JERSEY.

SNOW-PLOW.

SPECIFICATION forming part of Letters Patent No. 421,768, dated February 18, 1890.

Application filed May 16, 1889. Serial No. 311,025. (No model.)

To all whom it may concern:

Be it known that I, THEODORE SCHEFFLER, a citizen of the United States, residing at Paterson, in the county of Passaic and State of New Jersey, have invented a certain new and useful Improvement in Snow-Plows, of which the following is a specification.

My invention relates to that class of snow-plows in which a series of shovels rotate in a casing having an aperture through which the shovels eject the snow, and has for its object the regulation of the aperture through which the snow is ejected, so that the snow may be thrown out either at the side of the casing or at the top thereof, or at any point intermediate the side and top, and, further, to provide a deflector to direct the deposit of the snow in convenient lines along the track.

My invention consists in forming in the casing for the snow-shovels an aperture extending, preferably, from below the horizontal center line to a point beyond the perpendicular center line thereof and providing a regulator for such aperture, such regulator preferably being provided with an aperture of less area than the area of the aperture of the casing and being adapted to slide on the casing and close the aperture thereof, except where it is coincident with the aperture in the regulator, whereby the line of discharge of the snow is varied.

My invention further consists in providing a deflector for the regulator-plate provided with an aperture above referred to, whereby the place of deposit of the snow may be governed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a central vertical transverse section of the casing of my improved snow-plow. Fig. 2 is a partial section and partial elevation thereof, the section being a vertical central longitudinal section of the lower half of the casing, and the elevation being taken with the observer at the right of Fig. 1 and being of the upper half thereof. Fig. 3 is a section taken on the plane of the line 3 3 of Fig. 1.

In the drawings, *a* is the driving-shaft, upon which is mounted a hub *b*, from which radiate spokes *c*. Carried by these spokes is a ring *d*, which serves to carry and support the shovels *e*, which are secured at their outer ends to a ring or band *f*.

g is a hood, which is shown as trapezoidal in form, having its bottom surface so shaped that the hood will descend below the heads of the rails. This hood is also formed so as to present advanced cutting portions to the snow-bank.

The parts above described may be of any desired construction; but I prefer to have them of the construction shown in my application for Letters Patent filed April 16, 1889, Serial No. 307,490.

h is a casing, circular in cross-section, having an aperture, preferably oblong in shape when developed, extending, preferably, between the points *i i*—that is, from a point below the horizontal center line of the casing to a point beyond the perpendicular center line thereof.

j is the regulator, which is shown in the present example of my invention as a plate having an aperture smaller in area than the aperture of the casing. To operate this plate so that it will act as a regulator, it is curved to conform to the outer surface of the casing, so as to slide thereon, it being mounted at each side on the casing, as shown in section in Fig. 3, with the inner side resting upon the back plate *k* of the casing and the front side resting upon the circular rim *l* thereof, left after the aperture is formed, the broken lines in said figure representing the top plate of the casing before the aperture has been formed therein. To move the plate which forms the regulator in this example of my invention, on one side thereof a rack-bar *m* is mounted, and on angle-irons *n o* on the casing are mounted bearings for a shaft *p*, one end of which is provided with a crank-handle *q*, a pinion *r* on the shaft engaging with the rack *m* on the cap-piece. By this arrangement of rack and pinion an operator by the handle *q* may readily change the position of the aperture of the plate with relation to the aperture of the casing, thereby regulating the position of the discharge-opening.

Carried by the regulator is a deflector *s*, which is shown as a continuation of one side

of the aperture of the regulator, side plates s' and end plate s^2 being added, and the whole forming a funnel for the regulator-aperture. This deflector serves to direct the deposit of the snow, and being movable with the regulator the line of deposit of the snow may be altered as convenience requires. The broken lines in Fig. 1 show the regulator-plate and deflector in position to discharge the snow from the top of the casing.

t t are a series of holes formed in the casing, with one of which a hole on the regulator may be brought coincident. A pin u being passed through the coincident holes will serve to secure the regulator in position on the cap-piece.

What I claim is—

1. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, and a regulator-plate for the aperture of said casing, provided with an aperture smaller than the aperture of the casing, substantially as set forth.

2. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, a regulator-plate for the aperture of said casing, provided with an aperture smaller than the aperture of the casing, and a rack mounted upon said regulator engaging with a pinion on the casing, substantially as set forth.

3. In a snow-plow, the combination, with a casing and regulator-plate, each provided with an aperture, of means for bringing the aperture of the regulator opposite the aperture of the casing, substantially as set forth.

4. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, a regulator-plate for the aperture of said casing, provided with an aperture smaller than the aperture of the casing, and means for moving said regulator upon said casing, substantially as set forth.

5. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, a regulator-plate for the aperture of said casing, provided with an aperture smaller than the aperture of the casing, means for moving said regulator upon said casing, and means for holding it in a fixed position with relation thereto, substantially as set forth.

6. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, a regulator-plate provided with an aperture smaller than the aperture of the casing, and a deflector carried by said regulator, substantially as set forth.

7. In a snow-plow, the combination, with a casing provided with an aperture, of one or more snow-shovels acting in said casing, a regulator-plate provided with an aperture smaller than the aperture of the casing, and a spout carried by said regulator, substantially as set forth.

This specification signed and witnessed this 11th day of May, 1889.

THEODORE SCHEFFLER.

Witnesses:

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